

WHAT IS CLAIMED IS:

1. An electrical contact to electrically couple an implantable lead to a tissue stimulation device, comprising:

5 a conductive disk having an inner aperture, wherein the conductive disk is operably coupled to the tissue stimulation device; and

10 a plurality of conductive projections extending away from the inner aperture of the disk, wherein the conductive projections flex to receive the implantable lead and electrically couple to a plurality of terminals within the implantable lead.

15 2. The electrical contact in claim 1 wherein a tension exerted by flexing the conductive projections maintains the implantable lead relative to the first set of electrical terminals.

3. The electrical contact of Claim 1, wherein the conductive projections flex elastically.

20 4. The electrical contact of Claim 1, further comprising a plurality of projections at the outer perimeter of the conductive disk which operable couple the conductive disk to a housing wherein the housing is operable coupled to the tissue stimulation device.

25 5. The electrical contact of Claim 1, wherein conductive projections are comprised of a shape memory alloy.

6. The electrical contact of Claim 5, wherein the stimulation lead provides a stimulation pattern from an applied electric field and comprises:

a body having a first surface;

5 a plurality of electrodes positioned relative to the first surface of the body; and

a plurality of conductors, wherein a conductor electrically couples one terminal of the plurality of terminals with at least one electrode.

10 7. The electrical contact of Claim 1, wherein the tissue stimulation device comprises an implantable receiver to deliver electrical stimulation signals to the implantable lead in response to a control signal.

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8. A neuromodulation therapy system comprising:  
at least one implantable stimulation lead to deliver of  
electrical energy to proximately positioned tissue;  
an implantable pulse generator coupled to the at least one  
stimulation lead, wherein the implantable pulse generator is  
operable to deliver electrical energy to the at least one  
stimulation lead in response to at least one control signal, and  
wherein an electrical contact operably couples the at least one  
implantable stimulation lead to the implantable receiver, the  
electrical contact comprising:

a conductive disk having an inner aperture, wherein the  
conductive disk is operably coupled to the implantable receiver;  
and

a plurality of conductive projections extending away  
from the inner aperture of the disk, wherein the conductive  
projections flex to receive the at least one implantable  
stimulation lead and electrically couple to a plurality of  
terminals within the at least one implantable stimulation lead.

9. The system of claim 8, wherein tension exerted by  
flexing the conductive projections maintains the at least one  
implantable stimulation lead relative to the first set of  
electrical terminals.

10. The neuromodulation therapy system of Claim 8, wherein  
the conductive projections of the electrical contact flex  
elastically.

11. The neuromodulation therapy system of Claim 8, wherein  
the electrical contact, further comprises a plurality of  
projections at the outer perimeter of the conductive disk which  
operable couple the conductive disk to a housing wherein the  
housing is operable coupled to the implantable receiver.

12. The neuromodulation therapy system of Claim 8, wherein the projections are comprised of a shape memory alloy.

5        13. The neuromodulation therapy system of Claim 11, wherein the stimulation lead provides a stimulation pattern from an applied electric field and comprises:

        a body having a first surface;

        a plurality of electrodes positioned relative to the first  
10 surface of the body; and

        a plurality of conductors, wherein a conductor electrically couples one terminal of the plurality of terminals with at least one electrode.

15        14. A method to operably couple an implantable lead to a tissue stimulation device that comprises:

        operably coupling a conductive disk having an inner aperture to the tissue stimulation device; and

        receiving the implantable lead with a plurality of  
20 conductive projections extending away from the inner aperture of the disk, wherein the conductive projections flex and electrically couple to a plurality of terminals within the implantable lead.

25        15. The method of claim 14, wherein tension exerted by flexing the conductive projections maintains the implantable lead relative to the first set of electrical terminals.

30        16. The method of Claim 14, wherein the conductive projections flex elastically.

17. The method of Claim 14, wherein operably coupling the conductive disk to the tissue stimulation device further comprises operable coupling a plurality of projections at the outer perimeter of the conductive disk to a housing wherein the housing is operable coupled to the tissue stimulation device.

18. The method of Claim 14, wherein the projections are comprised of a shape memory alloy.

19. The method of Claim 14, wherein the stimulation lead provides a stimulation pattern from an applied electric field and comprises:

a body having a first surface;

a plurality of electrodes positioned relative to the first surface of the body; and

a plurality of conductors, wherein a conductor electrically couples one terminal of the plurality of terminals with at least one electrode.

20. The method of Claim 14, wherein the tissue stimulation device comprises an implantable receiver to deliver electrical stimulation signals to the implantable lead in response to a control signal.

21. An electrical contact to electrically couple an epidural stimulation lead to a tissue stimulation device, comprising:

5 a conductive disk having an inner aperture, wherein the conductive disk is operably coupled to the tissue stimulation device;

10 a plurality of conductive projections extending inwards from the inner aperture of the disk, wherein the conductive projections flex elastically to receive the epidural stimulation lead and electrically couple to a plurality of terminals within the epidural stimulation lead, and wherein tension exerted by flexing the conductive projections maintains the epidural stimulation lead relative to the first set of electrical terminals; and

15 a plurality of projections at the outer perimeter of the conductive disk which operable couple the conductive disk to a housing wherein the housing is operably coupled to the tissue stimulation device.

20 22. The electrical contact of Claim 21, wherein the epidural stimulation lead provides a stimulation pattern from an applied electric field and comprises:

a body having a first surface;

25 a plurality of electrodes positioned relative to the first surface of the body; and

a plurality of conductors, wherein a conductor electrically couples one terminal of the plurality of terminals with at least one electrode.

30 23. The electrical contact of Claim 22, wherein the tissue stimulation device comprises an implantable receiver to deliver electrical stimulation signals to the implantable lead in response to a control signal.